

ABSTRACT OF THE DISCLOSURE

In a periodic signal controller of the present invention, a first phase difference detection circuit 1 and a first sine-wave signal generation circuit 2 constitute a phase-locked loop for processing instantaneous values. A frequency difference detection circuit 4 determines a frequency difference between AC input and output signals, using instantaneous values of a first sine-wave signal output from the first sine-wave generation circuit 2 and a second sine-wave signal output from a second sine-wave signal generation circuit 9. A second phase difference detection circuit 3 determines a phase difference between the first and second sine-wave signals. An adder circuit 5 adds a phase difference detection signal to a frequency difference detection signal. A frequency variation rate limiter circuit 8 receives an output of the adder circuit 5 to limit a frequency variation rate of the second sine-wave signal to a fixed value or less, and also outputs to the second sine-wave signal generation circuit 9 a command signal for synchronizing the second sine-wave signal to the AC input signal. With this arrangement, even if the AC input signal includes a harmonic voltage, a sine-wave AC output signal synchronized with the AC input signal is generated.